



E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

PIGMENTS DEPARTMENT

cc: J. H. Baird - Wilmington
J. R. Born -
R. M. Salemi

43015

Newport, Delaware
January 10, 1973

C. I. SMITH, JR.
PIGMENTS - WILMINGTON

SOLIDS DISPOSAL AREA SOUTH OF CHRISTINA RIVER

Relative to your questions of this morning:

1. What is known of the composition of leachates to the Christina River?

Extensive analyses were conducted for over a year, beginning in August, 1970. Soil, ground water and surface water samples were included, as well as samples of river water. All results were reviewed with L. L. Falk, ESD consultant, who concurs in the following conclusions:

- a. No detectable contamination of the Christina River is attributed to leaching of the disposal area.
- b. Ground water samples from the perimeter of the disposal area analyze consistently lower in heavy metals than the U. S. Public Health Service standards for drinking water. An exception lies in Pb and Cd concentrations somewhat higher than standard in one location.
- c. Heavy metal analyses in the center of the disposal area are consistently higher than U. S. Public Health standards, but the soil structure is apparently stabilized to prevent leaching to the perimeter.
- d. The presence of minnows, both in the river and in a drainage ditch south of the area, is encouraging as to the absence of environmental damage.

AR200114

2. What have we done recently in the area and what are our plans?

Studies conducted in 1971 and 1972 indicated that vegetation (both grass and trees) could be established if nutrients were added. At that time, the availability of large quantities (~130,000 cu.yd.) of "muck" from the Route 141 bridge construction excavation became known to us, and negotiations were started to obtain it as a cover for the disposal area. All obstacles have apparently been overcome, and we expect this work to begin by mid-1973. Natural vegetation will probably grow from this material, and seeding is possible.

3. Will the entire area be covered with muck; if not, what restrictions apply?

The attached plan shows that coverage is limited to that portion more than 1.0 foot above sea level (0.1 foot above mean low water). As a practical matter, the deposited soil will probably wash down below this level and effectively cover the entire area.

E. L. RODOWSKAS, PLANT MANAGER

R M Haire

R. M. HAIRE

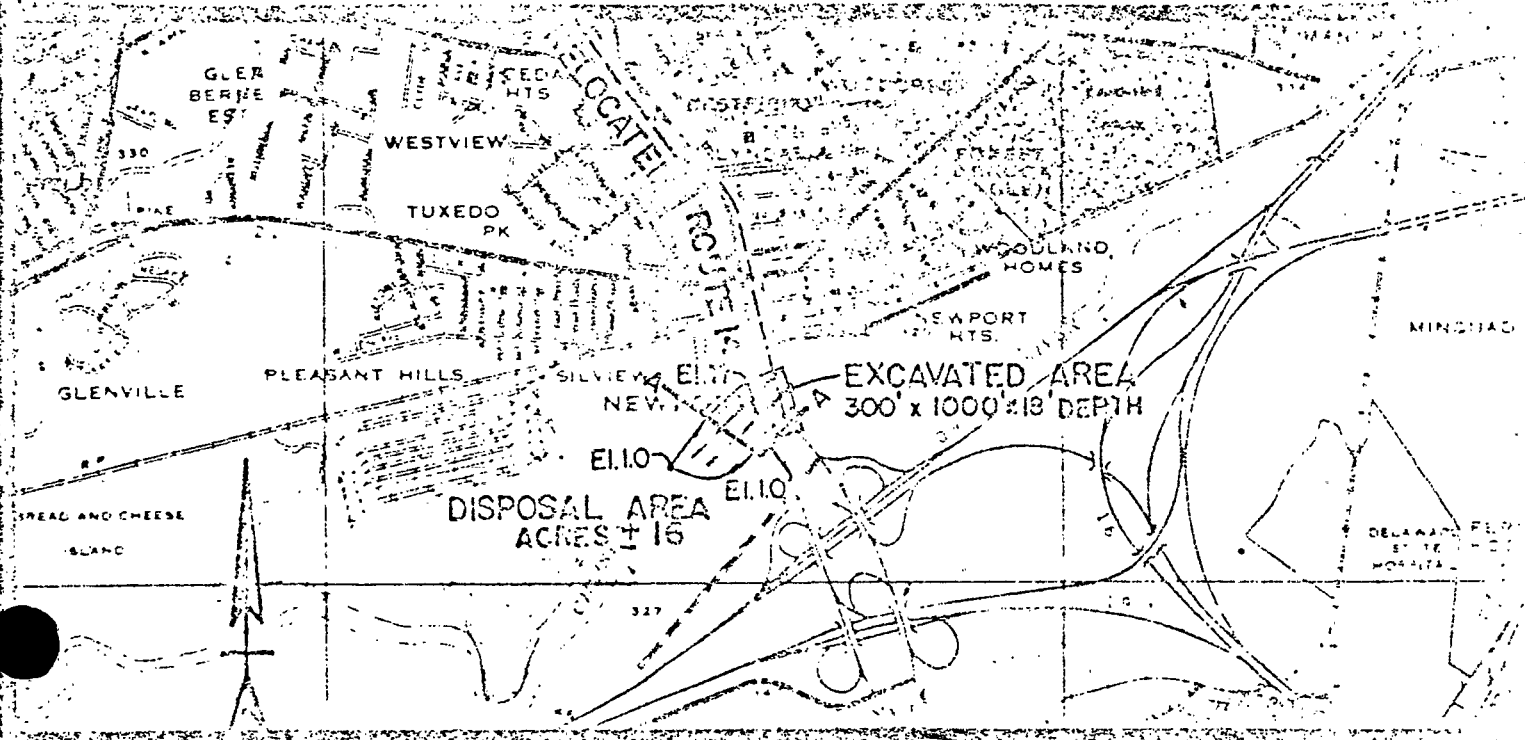
SUPERVISOR - PROCESS CONTROL

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Attachment

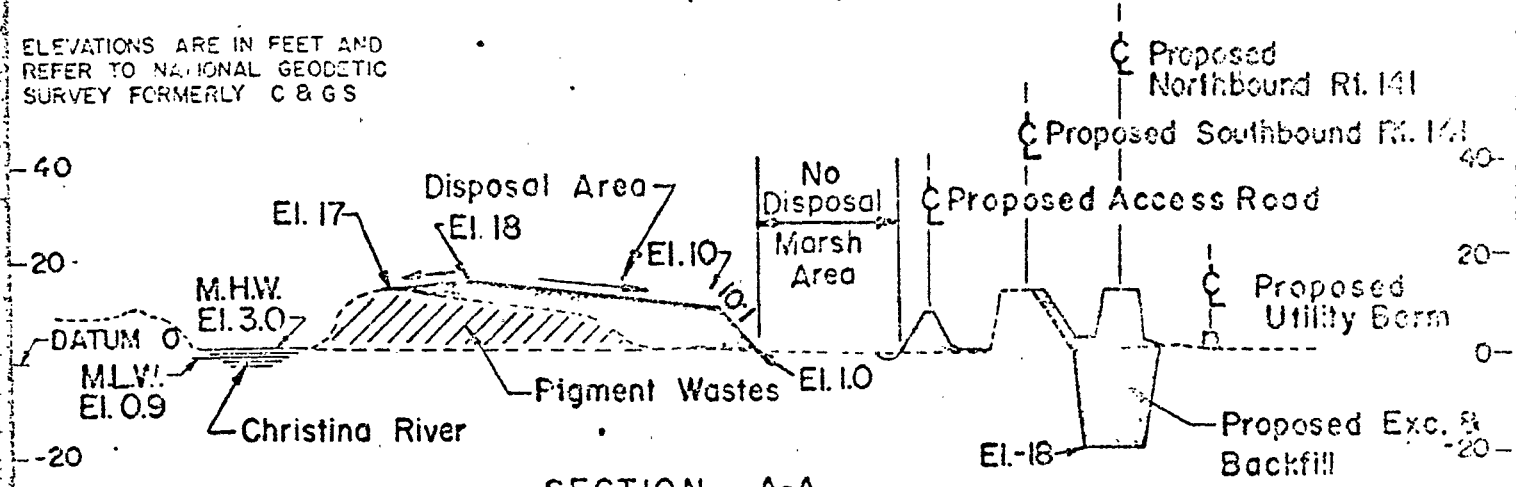
AR200115

ORIGINAL

Approximately 130,000 cubic yards of unsuitable material is to be excavated and backfilled with special borrow for the stabilization of Relocated Delaware Route 141. The excavated material is to be disposed on the site of a pigment waste dump. No disposal will be permitted in marsh area below elevation 1.0. The method of excavation and disposal will be by dredge or conventional methods at the option of the Contractor.



ELEVATIONS ARE IN FEET AND REFER TO NATIONAL GEODETIC SURVEY FORMERLY C & GS



SCALE: 1" = 400' HORIZ.
1" = 40' VERT.

Proposed excavation and disposal of unsuitable material for the construction of the south approach of the structure over the Christina River, Route 141, in New Castle County, State of Delaware.

Application By: Department of Highways and Transportation
Division of Highways

AR200116

JUN 8 1972

Date

Scale in miles

